

(No Model.)

H. SCHMOELE.

MUSIC ROLL.

No. 272.090.

Patented Feb. 13, 1883.

Fig. I.

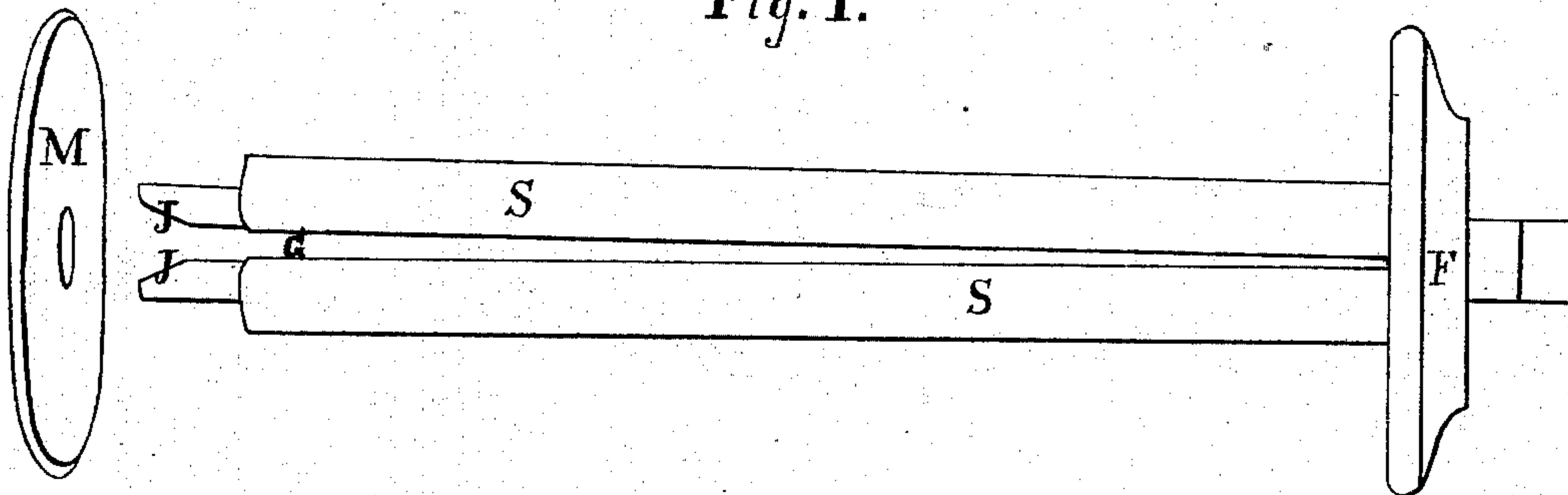


Fig. II.

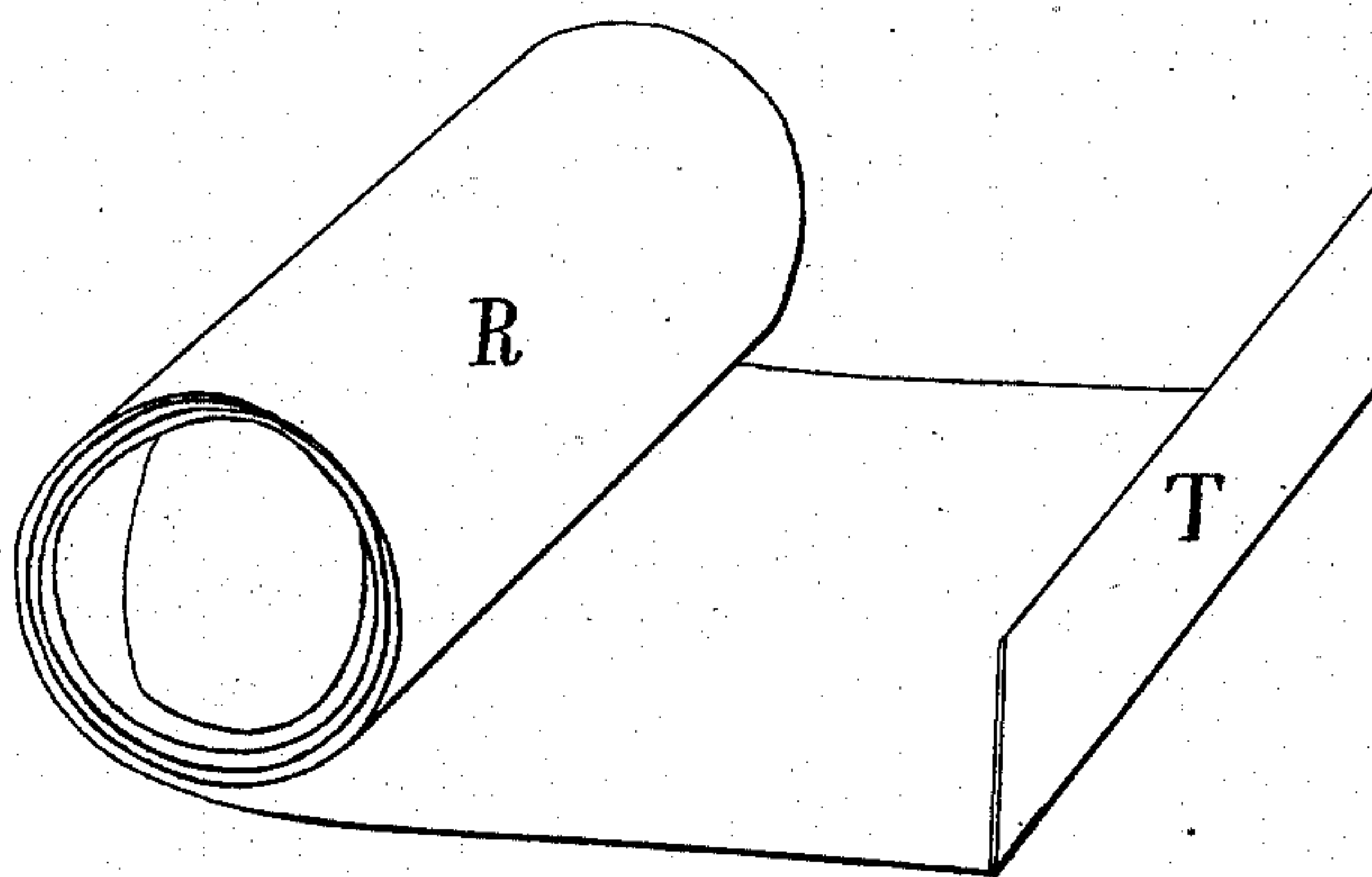


Fig. III.

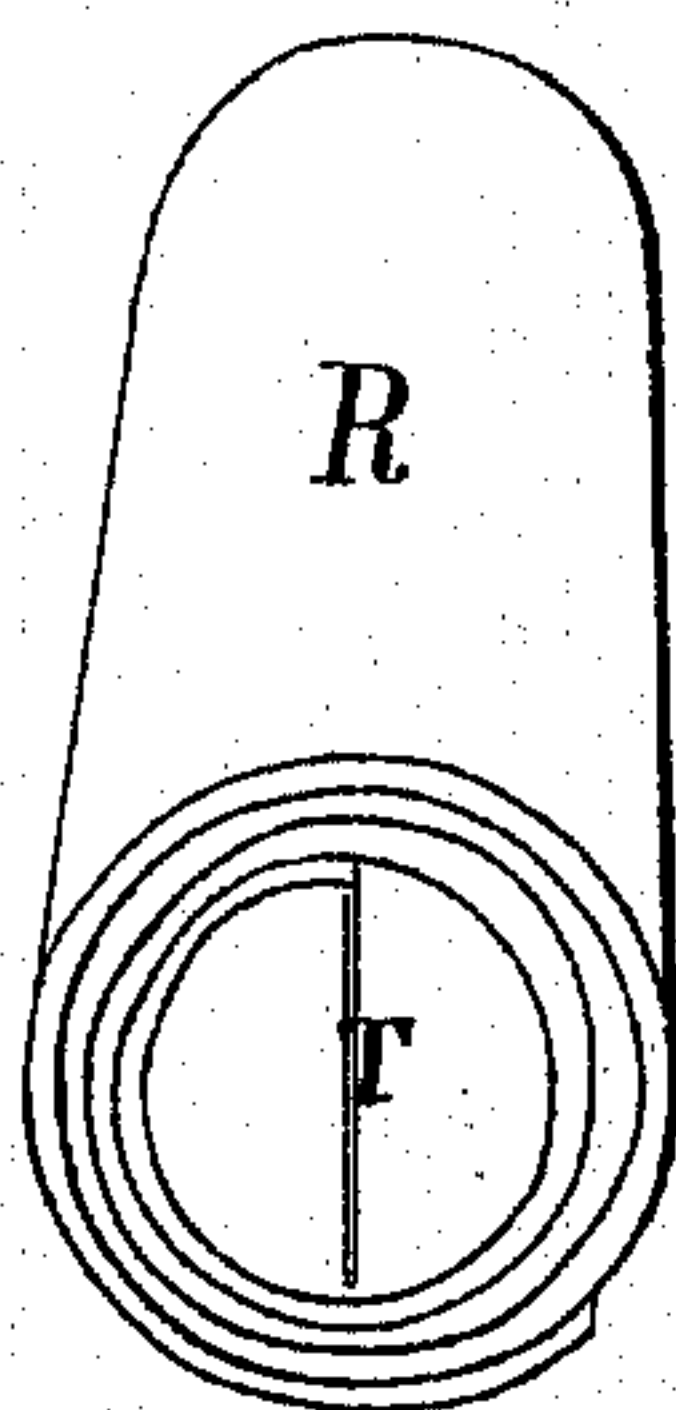
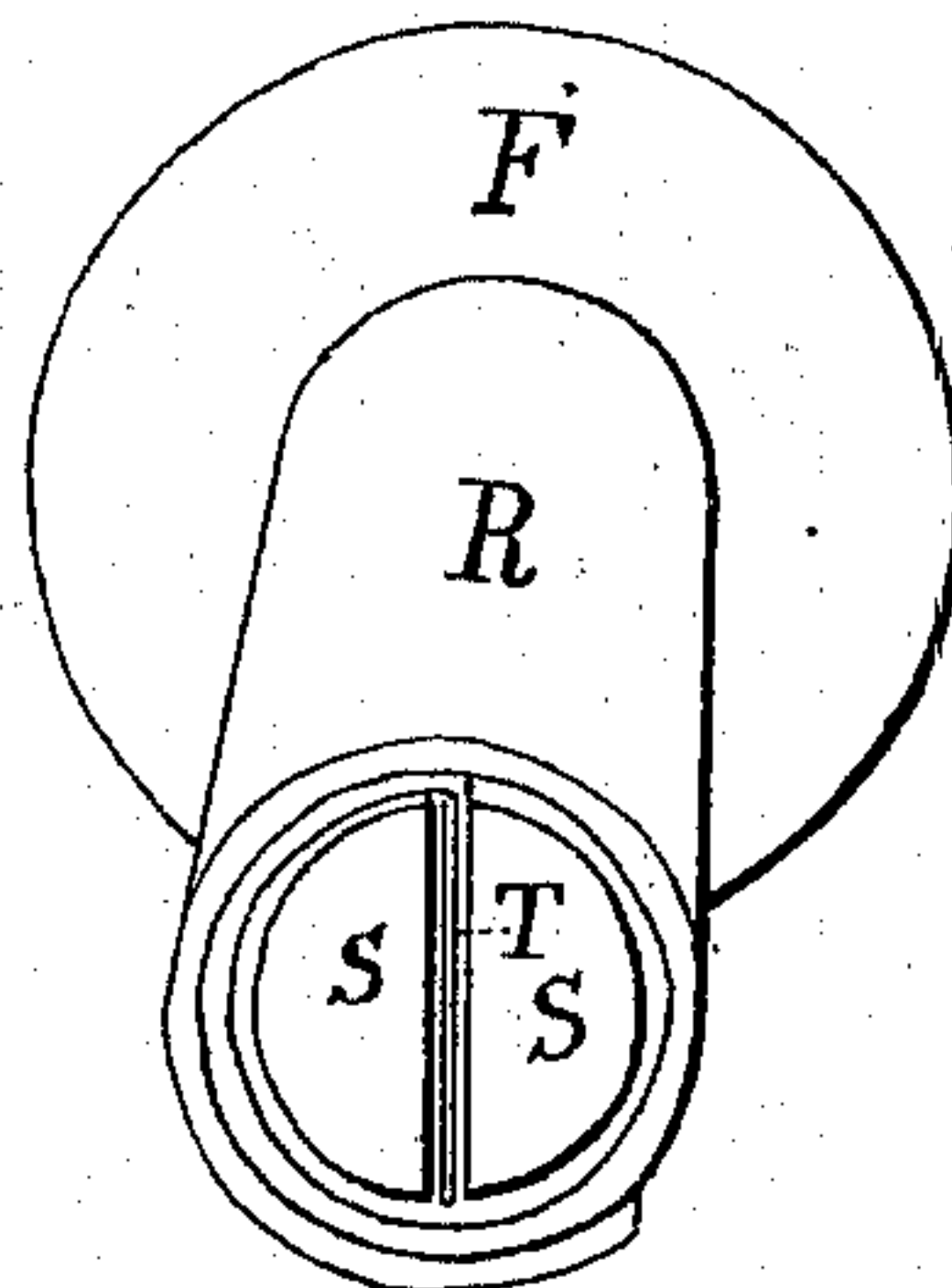


Fig. IV.



WITNESSES.

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MUSIC-ROLL.

SPECIFICATION forming part of Letters Patent No. 272,090, dated February 13, 1883.

Application filed June 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHMOELE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Music Rolls and Spools, of which the following is a specification.

The object of my improvements is to provide a spool for a mechanical musical instrument upon which any of the sheets or rolls of music designed therefor can be readily placed, without first unwinding to fasten the internal end, and from which the roll, having been unwound in being played, can be readily removed (having in the meantime been rewound) in the wound-up shape, and at the same time be ready for replacement at any time upon the spool, thereby obviating the necessity of providing a spool for each distinct roll of music. By using one spool interchangeably for all of a number of rolls the cost of spooling each roll of music permanently, with its distinctive spool, is saved, and the music consequently cheapened. I attain this object by the devices illustrated in the accompanying drawings, in which—

Figure I represents a longitudinal elevation of a spool, with the movable flange off, and in perspective; Fig. II, a perspective view of a music-roll exposing the terminal; Fig. III, a view of a music-roll with the terminal in the interior thereof, and Fig. IV a view of a music-roll wound upon a spool.

Similar letters refer to similar parts throughout the several views.

I prepare the music-roll R, Fig. II, by folding over and turning up the end T, Fig. II, at right angles, or as near thereto as practicable, to the plane of the sheet, at a distance somewhat less than the diameter of the shaft of the spool. I prefer, as the simplest method, to fold down—say seven-eighths of an inch of the end of the sheet, (the diameter of the spool-shaft being one inch,) and then turn up this double thickness so formed as a special terminal at right angles to the plane of the sheet in such manner that when the sheet is wound up in the roll form the terminal so formed will stand up in the position of a radius, T, Figs. III and IV, of the circle formed by the interior of the roll R, Figs. III and IV.

The spool consists of a central rod or shaft, S S, Fig. I, shouldered and mounted with two flanges, one of which, F, Fig. I, is preferably made stationary, and will hereinafter be so described, while the other, M, Fig. I, will be called for distinction, the "movable" flange. The shaft is split or separated by a groove, G, Fig. I, (to accommodate the terminal of the roll,) along its length, from the movable flange end J J, Fig. I, to the internal face of the stationary flange F, Fig. I. The ends of the spool-shaft, turned to a smaller diameter, project beyond the outside faces of the mounted flanges, as bearings for the spool to revolve upon and for connection with a screw-handle or other winding mechanism. The movable flange end of the shaft should be slightly rounded to readily pass into the hollow center of the music-roll, and the two internal faces, J J, Fig. I, of the split end, projecting beyond the movable flange, should be well beveled to readily start and guide the terminal of the roll into the split of the shaft. The two divisions S S, Fig. I, of the shaft should, when freed of the movable flange, spring apart at that end to pass with ease the terminal of the roll, and, when the movable flange is placed in position, should both squeeze the terminal of the roll in the split, and also hold firmly the movable flange in position by their tendency to spring apart.

To spool a roll of music the movable flange must be taken off the shaft, the split end run into the open center of the music-roll, care being taken to make the terminal enter the split in the shaft. When the shaft has fully entered the movable flange is replaced and the spool placed in the instrument for playing. When a roll, after playing, is to be laid away, it must first be rewound upon the spool, the terminal of the roll affording the proper fastening to start the rewinding, the flange removed, and the spool withdrawn. The spool is then ready to receive another roll of music, and the roll just removed is in a shape to be at any time replaced upon the spool for playing, without unwinding to attach its internal end, and it is also in a good shape for preservation and storage. The terminal thereby provides a means of temporarily fastening the end of a roll to a shaft for the purpose of rewinding, and at pleasure permits of rapid detachment from and replacement upon the spool of

the roll without unwinding. The terminal of the roll should readily enter the split when the movable flange is off, and become securely squeezed therein when said flange is placed in position. The movable flange can be otherwise held than by the friction and spring of the ends of the shaft. So also the two divisions of the shaft can be hinged to the fixed flange.

10 I do not claim broadly a split roller or spool and a washer or nut for clamping the split parts for holding the terminal of a ribbon or traveling sheet by such clamping action, as such a clamping split device is not new.

15 I claim as my invention—
The roll for the music-sheet of mechanical

musical instruments herein described, consisting of the semi-cylindrical spring-section S S, the fixed collar F, for securing said sections together at one end, and from which the split 20 G extends, and the movable collar M, the said section having bearings outside of said collars and having the terminal bevels J J, and the said collars forming the heads of the spool for confining the roll and protecting the edges of 25 the traveling sheet, as shown and described, for the purpose specified.

HENRY SCHMOELE.

Witnesses:

THOMAS M. KEELY,
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